

Connecting R&D Ecosystems in Europe

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Abstract

Semiconductor industry, the main driver of nano-electronics, continues its steeplechase of 'red brick walls'. The international racing track is an increasingly complex mixture of technical and economical challenges. Along the value chain, a paradigm shift is seen toward specialization and outsourcing, turning advanced CMOS into an expensive commodity. Business value has to come from combining 'brains' (Moore's Law) with 'arms, legs, ears and eyes' (More than Moore). Nevertheless, all players have to invest in ideas for new devices, new architectures, new systems, and new manufacturing. The European R&D competence clusters provide an excellent breeding ground because of the close proximity of industry (large and small), universities and institutes, and public and private investors. As value chains evolve into ecosystems, existing clusters have to look around, leverage their regional strengths, and align with and learn from others, ultimately contributing to a global network of matching capabilities to solve global problems.